

## **Claims**

What is claimed is:

1. A method for processing a structural document to remove ambiguities from the document prior to processing, comprising the steps of:

5       representing the structural document as a hierarchical tree structure;  
      receiving translation rules defined by a user with reference to the hierarchical tree structure;  
      automatically generating a modified hierarchical tree structure representing the structural document in accordance with the translation rules.

10       2. The method of claim 1, wherein the translation rules include rules for grouping elements of the structural document.

15       3. The method of claim 2, wherein the rules for grouping are selected from the group consisting of: diversification of sub-tree tags, and identity of sub-tree tags.

20       4. The method of claim 3, wherein the rules for grouping are represented as a two column table wherein a first column of the table defines a plurality of nodes in the hierarchical tree structure, and a second column of the table defines a rule to be applied to grouping each of one of the plurality of nodes.

25       5. The method of claim 1, wherein the hierarchical tree structure is Document Object Model, and the structural document to be translated is in a format selected from the group consisting of: flat file and Extensible Markup Language.

6. The method of claim 1, wherein the step of automatically generating a modified hierarchical tree structure comprises processing each node of the hierarchical tree structure in accordance with the translation rules, automatically generating a dynamic table representing an interim translation of the hierarchical tree structure, and generating the modified hierarchical tree structure from the interim translation.

7. The method of claim 1, wherein the translation rules are generated by the user by means of a graphical user interface that displays to the user various data elements of the structural document represented as nodes in a hierarchical tree structure.

8. The method of claim 1, wherein the ambiguities to be removed from the structural document include data loops that are not marked as loops.

9. A system for processing a structural document to remove ambiguities from the document prior to processing, comprising the steps of:

- means for representing the structural document as a hierarchical tree structure;
- means for receiving translation rules from a user having reference to the hierarchical tree structure;
- means for automatically generating a modified hierarchical tree structure representing the structural document in accordance with the translation rules.

10. The method of claim 9, wherein the translation rules include rules for grouping elements of the structural document.

11. The method of claim 10, wherein the rules for grouping are selected from the group consisting of: diversification of sub-tree tags, and identity of sub-tree tags.

12. The method of claim 11, wherein the rules for grouping are represented as a two column table wherein a first column of the table defines a plurality of nodes in the hierarchical tree structure, and a second column of the table defines a rule to be applied to grouping each of one of the plurality of nodes.

5 13. The method of claim 9, wherein the hierarchical tree structure is Document Object Model, and the structural document to be translated is in a format selected from the group consisting of: flat file and Extensible Markup Language.

10 14. The method of claim 9, wherein the means for automatically generating a modified hierarchical tree structure comprises means for processing each node of the hierarchical tree structure in accordance with the translation rules, automatically generating a dynamic table representing an interim translation of the hierarchical tree structure, and generating the modified hierarchical tree structure from the interim translation.

15 15. The method of claim 9, further comprising a graphical user interface that displays to the user data elements of the structural document as nodes in a hierarchical tree structure, means for allowing the user to select grouping options for such nodes, and means for transforming the selected grouping options into the translation rules.

16. The method of claim 9, wherein the ambiguities to be removed from the structural document include data loops that are not marked as loops.

17. A computer program product comprising:

20 a computer usable medium having computer readable program code means embodied therein for causing the processing of a structural document to remove

ambiguities from the document prior to processing, the computer readable program code means in said computer program product comprising:

computer readable program code means for causing a computer to effect representing the structural document as a hierarchical tree structure;

5 computer readable program code means for causing a computer to effect receiving translation rules defined by a user with reference to the hierarchical tree structure;

computer readable program code means for causing a computer to effect automatically generating a modified hierarchical tree structure representing the structural document in accordance with the translation rules.

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